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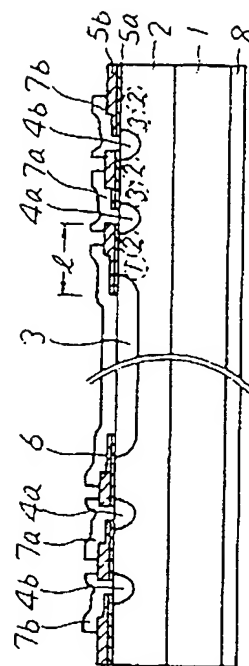
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TITLE : SEMICONDUCTOR DEVICE



ABSTRACT : PURPOSE: To improve the breakdown strength of a semiconductor device by providing field plates on a first semiconductor region and a guard ring region, and reducing an interposed insulating film thinner than in the vicinity of the outer peripheral edge of the plate near the outer periphery of a contact window.

CONSTITUTION: A thermally oxidized SiO_2 film 5a is formed on an I-type layer 2 made of an n^+ type layer 1 on a rear surface and the I-type layer 2 on a front surface.

An SiO_2 film 5b is deposited by a chemical vapor growth method in such a manner that the total thickness of the film 5a and the film 5b is approx. $4\mu\text{m}$, and a mainly diffused region 3 and the film 5b near the outer periphery of guard ring-diffused regions 4a, 4b are selectively etched to form the total thickness of the films 5a, 5b approx. $2\mu\text{m}$. Further, the contact windows of the ohmic contact electrode of the region 3 and a field plate 6 as well as the field plates 7a, 7b of the regions 4a, 4b are opened to form ohmic contact electrodes and field plate 6, field plates 7a, 7b. An electrode 8 to be in ohmic contact with the layer 1 is formed.

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